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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,581

12/02/2005

Kasumi Oi

CU-4563 RJS

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26530 7590 03/18/2008  
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EXAMINER

CHOI, LING SIU

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,581	<b>Applicant(s)</b> OI ET AL.	
	<b>Examiner</b> Ling-Siu Choi	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/16/2007, 3/2/2006</u> .                                     | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-7 were canceled and claims 8-18 are now pending, wherein claims 8-17 are drawn to a filler layer for a solar cell and claim 18 is drawn to a solar cell module.

#### ***Claim Objections***

2. Claims 8-18 are objected to because of the following informalities: Claim 8, lines 4-5, "the filler layer for a solar cell module is used in a solar cell module" is suggested to be changed to -- the filler layer is used in a solar cell module--.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. **The following is a quotation of the second paragraph of 35 U.S.C. 112:**

**The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9, line 2, the recitation of "polyethylene for addition" causes indefiniteness. If "polyethylene for polymerization" (claim 8, line 3) is understood as the polyethylene

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involved in polymerization with ethylenic unsaturated silane compound to form the modified polyethylene, the “polyethylene for addition” may be interpreted as the polyethylene as unmodified one which is added to the modified polyethylene to form a blend or something else.

### ***Claim Analysis***

5. Summary of Claim 8:

A filler layer for a solar cell module containing a <u>silane-modified resin</u>	
obtained by polymerizing	an ethylenic unsaturated silane compound
	a polyethylene for polymerization
wherein the filler layer for a solar cell module has a <u>gel fraction of 30% or lower</u> when the filler layer for a solar cell module is used in a solar cell module	

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

**A person shall be entitled to a patent unless –**

**(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

7. Claim 8, 12-15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuzuki et al. (JP 2003-046105).

The present claims are drawn to product-by process. The caselaw has held that “[i]f the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695,698, 227 USPQ 964,966 (Fed. Cir. 1985).

Tsuzuki et al. disclose a filler layer for the solar battery module, comprising a resin film composed of a resin composition including the copolymer of  $\alpha$ -olefin and an ethylene unsaturated silane compound or its condensation product, wherein the ethylene unsaturated silane compound includes “vinyltrimethoxysilane, vinyltriethoxysilane...” and is in an amount of 0.001 to about 15 wt%; and the  $\alpha$ -olefin can be ethylene ([0010]; [0012]; claims 1-3). Tsuzuki et al. further disclose that the gel molar fraction is 0% immediately after film formation and does not change at 150°C for 15 min ([0035]-[0036]). Thus, the present claims are anticipated by the disclosure of Tsuzuki et al.

8. Claim 8-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitagawa (JP 2002-009309).

Kitagawa discloses a modified olefin resin sheet for a solar battery module, the resin sheet comprising an olefin resin modified by an ethylene unsaturated silane compound  $[R^1Si R_n^2 Y_{3-n}]$  with  $R^1$ ,  $R^2$ , and Y being an ethylene unsaturated hydrocarbon group, a hydrocarbon oxy group, a hydrocarbon group, an organic group than can be subjected to hydrolysis] and having a gel fraction of 30 % or less, wherein the content of the ethylene unsaturated silane is 0.1-10 wt% and the olefin resin is an ethylene resin (abstract;

[0014]; [0026]). Kitagawa further disclose that a radical generating agent used in the modification (graft) reaction is a peroxide compound ([0015]). Thus, the present claims are anticipated by the disclosure of Kitagawa.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Gudelis (US 5,169,900).

Gudelis discloses a film having release characteristics, obtained by the process comprising (A) admixing in an extruder a composition comprising (a) a polyolefin in molten form, (b) a dimethyl polysiloxane having functional end-groups, (c) an organoperoxide agent for the grafting of vinyl silane compounds onto the polyolefin, (d) at least one vinyl silane compound in an amount that is equal to or in excess of the stoichiometric amount that is capable of being grafted onto the polyolefin using the grafting agent of (c), and (e) an organometallic moisture curing agent; (B) extruding the composition at a temperature above the melting point of the polyolefin to effect grafting of the vinyl silane onto the polyolefin; and (C) subjecting the resultant extruded composition to moisture (claim 1). However, Gudelis does not teach or fairly suggest the claimed filler layer used for the solar cell module, wherein the gel fraction is 30% or less.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Ling-Siu Choi/

Primary Examiner, Art Unit 1796

March 14, 2008

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